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Report On Business®

Economic Decline Lessens; PMI Advances to 48.8%, Production Index Rises to Highest Since April 1989

MARCH REPORT

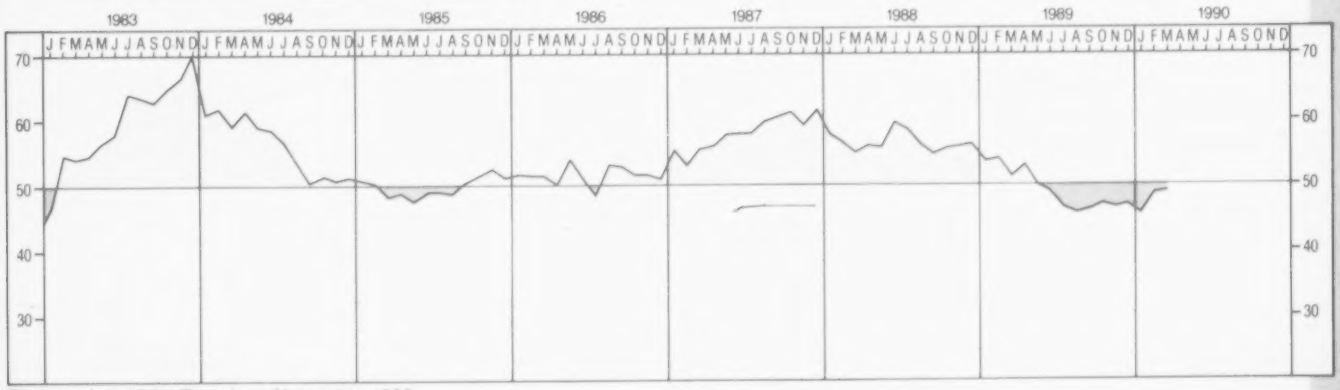
Analysis by the National Association of Purchasing Management Business Survey Committee; chair, Robert J. Bretz, C.P.M., director of materials management, Pitney Bowes, Inc.

The economic decline diminished somewhat in March, say the nation's purchasing executives in their latest **Report on Business.** The Production Index increased to 54.4%, the most since April 1989 and the second consecutive month that Production has increased. New Orders increased slightly for the second consecutive month but at a lesser rate than in February. The New Export Orders Index increased significantly to the highest level since September 1989. Imports also increased, but at the same low level as in the previous two months. Inventories decreased for the 16th consecutive month, although at a slightly lesser rate than the past two months.

Supplier Deliveries (formerly Vendor Deliveries) were faster for the 11th consecutive month, although the Supplier Deliveries Index was up two and one-half points from February. Only six commodities qualified for the In Short Supply list, the fewest since this economic recovery began. Prices declined for the 10th consecutive month, but at a considerably lower rate than in February. Employment also declined in March, for the 13th consecutive month

The **Report** was issued by Robert J. Bretz, C.P.M., chairman of the National Association of Purchasing Management's Business Survey Committee, and director of materials management at Pitney Bowes, Inc. Said Bretz, "Although the manufacturing economy registered the 11th consecutive monthly decline in March, the rate of the decline was the lowest since June 1989. March was the only normal month in the first quarter, after the auto- and weather-related production curtailment in January and the make up for those reductions during February. The continued easing in the pace of the economic decline as we exit the first quarter is encouraging. Although we may be forming a bottom, caution should be exercised, since the first robin never makes it a spring."

PURCHASING MANAGERS' INDEX



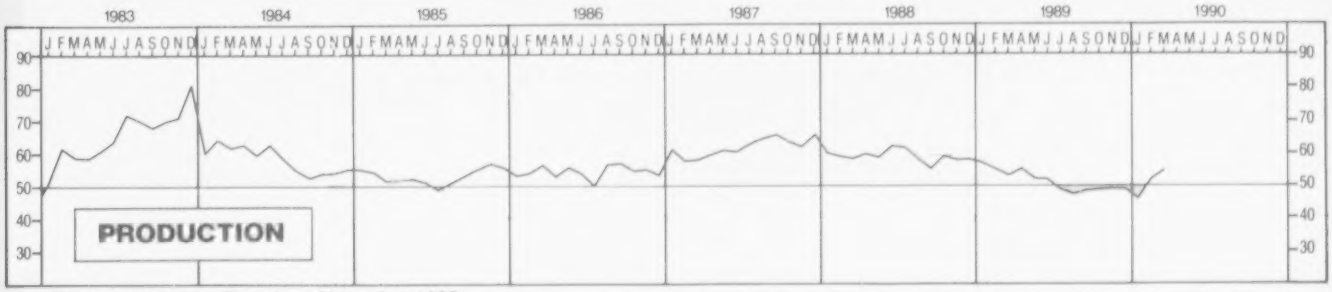
Peak — July 1981; Trough — November 1982.

PURCHASING MANAGERS' INDEX (PMI)

March '89	51.0	October '89	46.9
April '89	52.7	November '89	46.4
May '89	49.8	December '89	46.7
June '89	48.8	January '90	45.2
July '89	46.2	February '90	48.3
August '89	45.5	March '90	48.8
September '89	46.0		

The **Purchasing Managers' Index** (PMI) rose to 48.8% in March, inching upward from 48.3% in February. Although March is the 11th consecutive month this leading indicator has declined, the 48.8% reading is the highest the index has registered since June 1989 (also 48.8%). A reading below 50 indicates that the manufacturing economy is generally declining; above 50, that it is generally expanding. Bretz added, "The rise in the PMI in March is a continuation of the gradual increase every month since November 1989, with the exception of January 1990, and may be signaling a leveling-off in the 11-month decline in the economy."

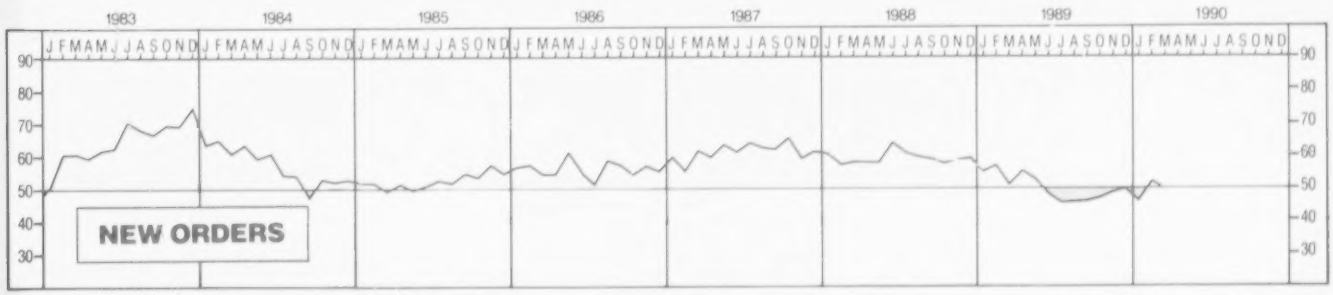
BUSINESS



Peak — July 1981; Trough — November 1982.

Production increased in March for the second consecutive month. The Production Index rose to 54.5%, up almost three points from February, and the most since April 1989 (54.9%).

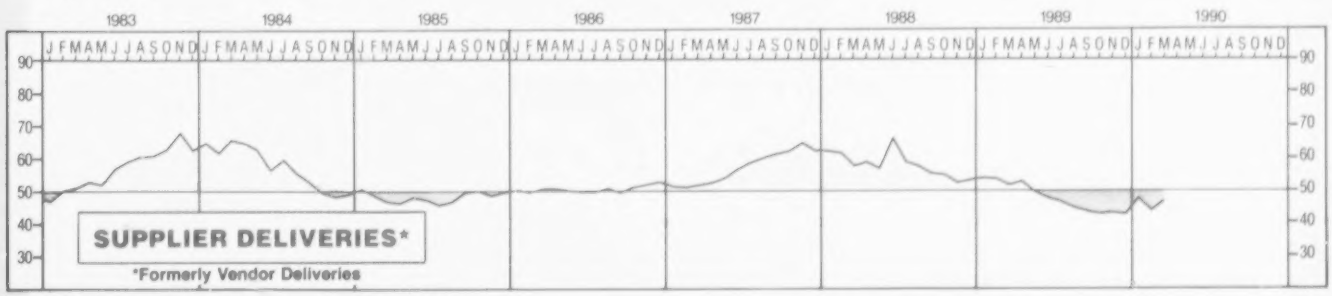
Production	%Better	%Same	%Worse	Net	Index
March 1990	28	55	17	+ 11	54.4
February 1990	27	53	20	+ 7	51.5
January 1990	18	56	26	- 8	45.4
December 1989	17	58	25	- 8	48.4



Peak — July 1981; Trough — November 1982.

New Orders increased slightly in March for the second consecutive month after increasing in February for the first time since mid-1989. The New Orders Index fell to 50.4%, down from 51.8% last month. The surge in New Export Orders contributed greatly to the continued increase in New Orders.

New Orders	%Better	%Same	%Worse	Net	Index
March 19[illegible]	30	48	22	+ 8	50.4
February [illegible]0	29	48	23	+ 6	51.8
January 1990	23	50	27	- 4	45.8
December 1989	17	56	27	- 10	49.4



Peak — July 1981; Trough — November 1982.

Supplier Deliveries were faster in March for the 11th consecutive month. The Supplier Deliveries Index rose two and one-half points to 45.8%, up from 43.3% in February. With a few exceptions, most commodities are not in short supply, nor are most purchasers having difficulty with their supplier deliveries.

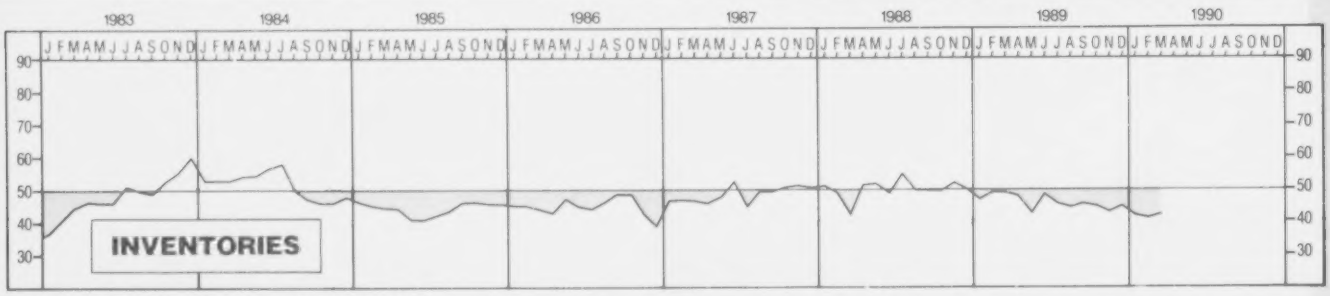
Supplier Deliveries	%Slower	%Same	%Faster	Net	Index
March 1990	5	84	11	- 6	45.8
February 1990	3	80	17	- 14	43.3
January 1990	7	82	11	- 4	47.2
December 1989	4	78	18	- 14	42.5

IN SHORT SUPPLY

Bearings — 20th consecutive month, a consequence of anti-dumping suits; **Electric Motors** — 7th time in 12 months; **Caustic Soda/Soda Ash** — 34th consecutive month (used heavily in paper-making, petroleum refining and soap-making); **Hydrogen Peroxide** — 4th consecutive month, increasing demand exceeding supply because of switching from chlorine use by paper makers to avoid dioxins (used as a bleaching agent and, in solution, as a topical cleansing agent and antiseptic); **Sodium Chlorate** — 10th consecutive month, increasing demand exceeding supply because of switching from chlorine use by paper makers to avoid dioxins (used heavily in paper-making and dyeing); **Titanium Dioxide** — 32nd consecutive month, increasing demand exceeding supply because of switching from chlorine use by paper makers to avoid dioxins (a lead-free pigment used as a whitener in coatings, paints, paper and other industrial applications).

UP IN PRICE

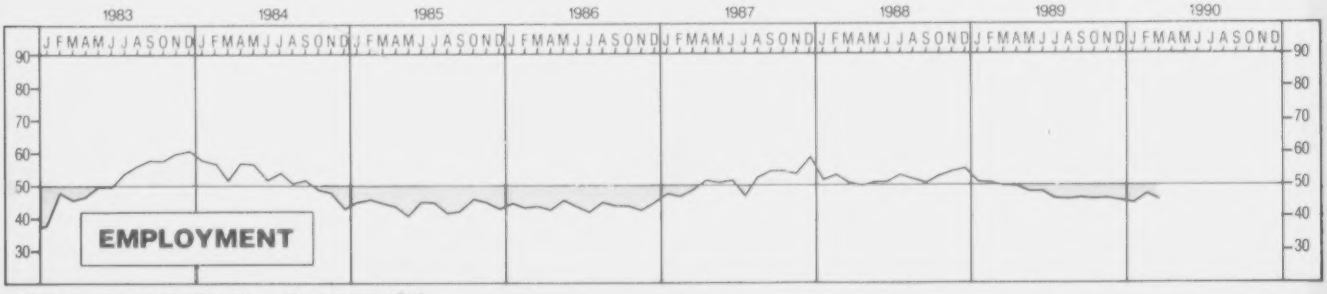
Nickel — After being reported down in price in February for the 9th consecutive month, (used heavily in making stainless steel, plating metals, and batteries); **Zinc** — After being reported down in price in February for the 9th time in 10 months, some reports of price decreases (used heavily in metal alloys and as a protective coating for metal); **Bearings** — 19th time in 21 months, a consequence of anti-dumping suits; **Electric Motors** — 6th time in 9 months; **Caustic Soda/Soda Ash** — 40th consecutive month, primarily as a consequence of lower demand for co-produced chlorine by paper-makers (used heavily in paper-making, petroleum refining and soap making); **Methanol** — 3rd consecutive month, aided by a Brazilian court ruling allowing substitution of 33% methanol into Brazil's most widely used motor fuel (used heavily as a solvent, a motor fuel additive, and in synthesizing other chemicals); **Toluene** — 2nd consecutive month (used heavily in making explosives, dyes, and benzoic acid; as a solvent in paint and as a gasoline additive; **Xylene** — Used heavily in making benzoic acid, phthalic anhydride, polyester fibers and dyes; **Hardwoods** — Used heavily in making furniture, cabinets



Peak — July 1981; Trough — November 1982.

Inventories declined in March for the 16th consecutive month, although at a somewhat lesser rate than the previous two months. The Inventories Index rose to 41.6%, up from 40.8% in February, which was the lowest since December 1986 (38.4%).

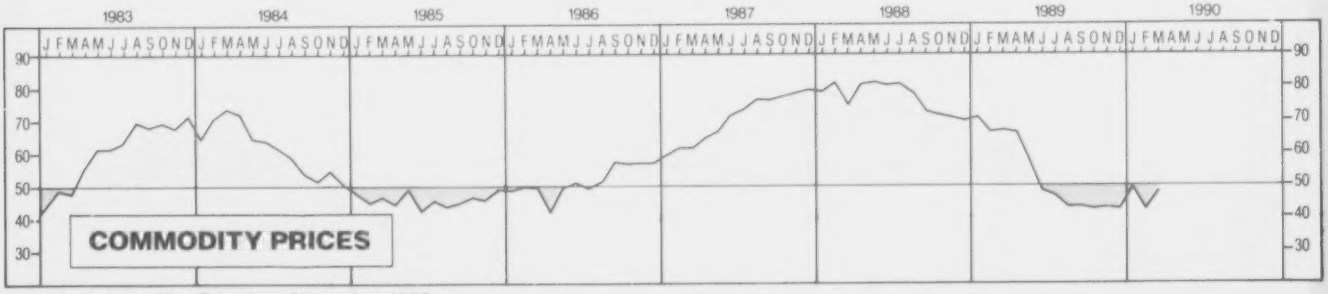
Inventories	%Higher	%Same	%Lower	Net	Index
March 1990	15	56	29	−14	41.6
February 1990	18	50	32	−14	40.8
January 1990	14	56	30	−16	41.8
December 1989	15	55	30	−15	44.5



Peak — July 1981; Trough — November 1982.

Employment declined for the 13th consecutive month in March. The Employment Index dropped to 45.2%, down from 46.7% in February. Members continued to report layoffs, hiring freezes, and early retirement programs to reduce employment.

Employment	%Higher	%Same	%Lower	Net	Index
March 1990	12	70	18	− 6	45.2
February 1990	11	69	20	− 9	46.7
January 1990	8	71	21	−13	44.1
December 1989	8	69	23	−15	44.9



Peak — July 1981; Trough — November 1982.

Prices declined in March for the 10th consecutive month, although the pace of the decline was lower than last month. The Price Index rose to 48.2%, up significantly from February (42.2%), which was the lowest since December 1982 (39.1%).

Prices	%Higher	%Same	%Lower	Net	Index
March 1990	13	72	15	− 2	48.2
February 1990	13	59	28	−15	42.2
January 1990	24	56	20	+ 4	49.7
December 1989	10	63	27	−17	42.7

and some grades of paper; **Gasoline** — 2nd time in 3 months; **Corn Products** — 2nd consecutive month; corn starch (used heavily in both food processing and paper making) and corn sweeteners (used in food processing).

DOWN IN PRICE

Aluminum — 12th consecutive month (particularly aluminum ingot); **Aluminum Products** — 5th consecutive month; **Steel** — 7th consecutive month (some reports of price increases); **Stainless Steel** — 4th consecutive month; **Linerboard** — Used heavily in making corrugated shipping cartons; **Corrugated Shipping Containers** — 2nd consecutive month; **Printing Paper** — 8th time in 9 months; **Acetic Acid** — 2nd consecutive month (used in making various acetates, plastics and rubber in tanning, a preservative in foods and a solvent for gums, resins and volatile oils); **Benzine** — 2nd consecutive month, after being reported up in price for 3rd consecutive month in December 1989 (used heavily in making medicinal chemicals, dyes, varnishes, lacquers and resins); **Chlorine** — 7th time in 12 months, primarily a consequence of lower demand by paper-makers switching to alternatives to avoid dioxins while demand for co-produced caustic soda continues (used heavily in bleaching paper and fabrics; purifying water; and, in making synthetic rubber, plastics and other chemicals); **Ethylene Glycol** — 2nd consecutive month (used heavily in making antifreeze, brake fluid, plastic paint and ink); **Phenol** — 7th time in 10 months (used heavily in making phenolic resins); **Plastic Resins** — 3rd consecutive month (used in making plastic products); **Propylene** — Used heavily in making polypropylene; **Fiberglass** — 2nd time in 5 months (used heavily in making glass, wool, yarns, textiles, structures and insulation); **Diesel Fuel** — 2nd consecutive month, after being reported up in price in January 1990; **Fuel Oil** — 2nd consecutive month, after being reported up in price in January 1990 for 4 consecutive months; **Natural Gas** — 2nd consecutive month, after being reported up in price in January 1990 for 4 consecutive months; **Milk/Milk Powder** — After being reported up in price in January 1990 for the 3rd time in 4 months.

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BUYING POLICY

Lead times for Production Materials were somewhat mixed. The number of purchasers reporting buying hand-to-mouth increased to 19%, reflecting shorter lead times. Also the number reporting lead times of 6 months or longer increased to 5%, up from 3% last month, reflecting longer lead time. Overall, lead times for Production Materials were slightly longer.

Lead times for Capital Expenditures also lengthened as 70% of members reported lead times of 90 days or longer, up from 66% in February.

Lead times for Maintenance, Repair and Operating (MRO) Supplies were virtually unchanged as 49% of members reported lead times of 30 days, up from 47% in February. This was offset by the 39% buying hand-to-mouth, down from 42% last month.

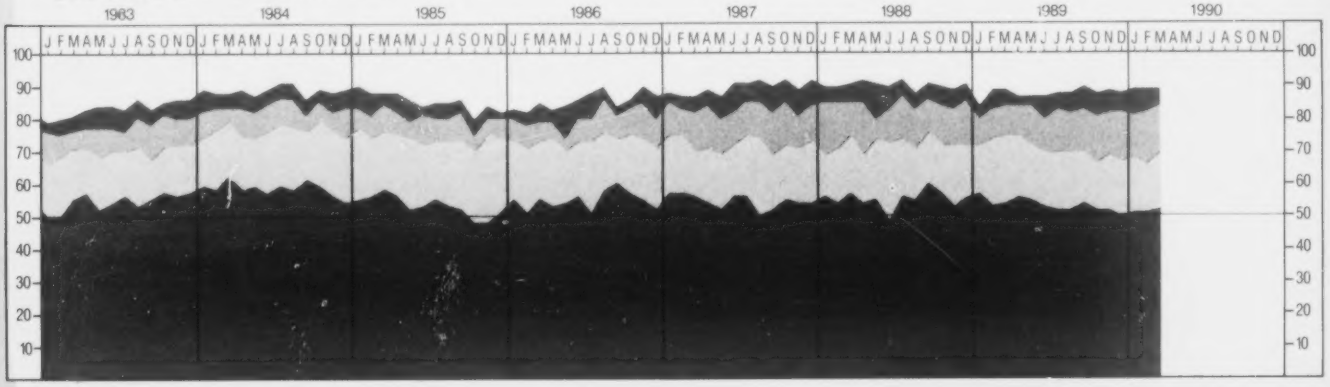
PERCENT REPORTING

Capital Expenditures	Hand to Mouth	30 Days	60 Days	90 Days	6 Mos. and Longer
March 1990	11	5	14	18	52
February 1990	10	8	16	15	51
January 1990	11	8	13	17	51
December 1989	11	6	15	18	50

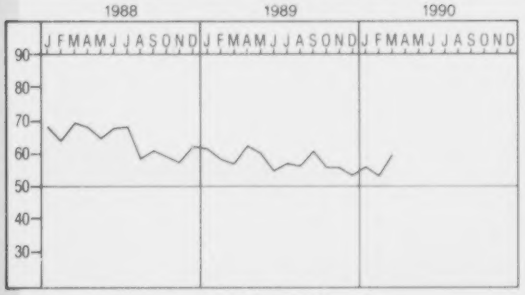
Production Materials	Hand to Mouth	30 Days	60 Days	90 Days	6 Mos. and Longer
March 1990	19	37	29	10	5
February 1990	17	40	28	12	3
January 1990	17	41	25	11	6
December 1989	17	40	27	13	3

MRO Supplies	Hand to Mouth	30 Days	60 Days	90 Days	6 Mos. and Longer
March 1990	39	49	9	2	1
February 1990	42	47	8	1	2
January 1990	41	45	11	2	1
December 1989	42	48	7	3	0

CAPITAL EXPENDITURES

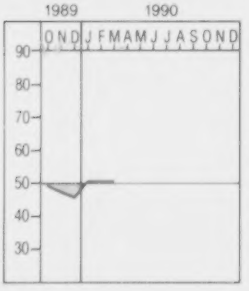


NEW EXPORT ORDERS



New Export Orders rose significantly in March. The seasonally unadjusted New Export Orders Index jumped to 59.5%, up over six points from February (53.0%), and the most since September 1989 (60.5%). The number of members exporting in March remained at 71%.

NEW IMPORTS



Imports increased in March for the third consecutive month. The Imports Index (not seasonally adjusted) was unchanged from February and January and remains the highest in the six-month history of the index. The number of members importing in March inched up to 78%, compared to February (77%).

New Export Orders	%Exporting	%Better	%Same	%Worse	Net	Index
March 1990	71	25	69	6	+19	59.5
February 1990	71	14	78	8	+ 6	53.0
January 1990	73	17	77	6	+11	55.5
December 1989	72	15	76	9	+ 6	53.0

Imports	%Importing	%Higher	%Same	%Lower	Net	Index
March 1990	78	12	77	11	+1	50.5
February 1990	77	12	77	11	+1	50.5
January 1990	82	12	77	11	+1	50.5
December 1989	78	5	81	14	−9	45.5

DATA AND METHOD OF PRESENTATION

The **Report on Business** is based on data compiled from monthly replies to questions asked of purchasing executives in over 300 industrial companies. Membership of the Business Survey Committee is diversified geographically, based on value added by state, and by Standard Industrial Classification (SIC) category, based on each industry's contribution to Gross National Product (GNP). Twenty industries in 50 states are represented on the committee.

Survey responses reflect the change, if any, in the current month compared to the previous month. For each of the indicators measured [New Orders, New Export Orders, Imports, Production, Supplier Deliveries (formerly Vendor Deliveries), Inventories, Employment and Prices], this report shows the percentage reporting each response, the net difference between the number of responses in the positive economic direction (higher, better and slower for Supplier Deliveries), and the negative economic direction (lower, worse and faster for Supplier Deliveries), and the diffusion index.

Responses are raw data and are never changed. The diffusion index includes the percent of positive responses plus one-half of those responding the same (considered positive). The resulting single index number is then seasonally adjusted to allow for the effects of repetitive intra-year variations resulting primarily from normal differences in weather conditions, various institutional arrangements and differences attributable to non-moveable holidays. All seasonal adjustment factors are supplied by the U.S. Department of Commerce and are subject annually to relatively minor changes when conditions warrant them. A sufficient history is not yet available for the New Export Orders and Imports Indexes to determine seasonal adjustment factors. Therefore, these two indexes are not seasonally adjusted. The Purchasing Managers' Index (PMI) is a composite index based on the seasonally adjusted diffusion indexes for five of the indicators (New Orders, Production, Supplier Deliveries, Inventories and Employment) with varying weights applied.

Diffusion indexes have the properties of leading indicators and are convenient summary measures showing the prevailing direction of change and the scope of change. An index reading above 50% indicates that the economy is generally expanding; below 50%, that the economy is generally declining. The distance from 50% is indicative of the strength of the expansion or decline.